Commonwealth of Kentucky

Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Sun Chemical Corporation, Wurtland Facility**
Mailing Address:	**100 Wurts Road, Wurtland Kentucky 41144-1453**
Source Name:	**Sun Chemical Corporation, Wurtland Facility**
Mailing Address:	**Same as above**
Source Location:	**100 Wurts Road, Wurtland Kentucky**
Permit Number:	**V-05-042**
Source A. I. #:	**1604**
Activity #:	**APE20040001**
Review Type:	**Title V, NSPS, Synthetic Minor**
Source ID #:	**21- 089 - 00032**
Regional Office:	**Ashland Regional Office** **1550 Wolohan Drive, Suite #1** **Ashland, KY 41102** **(859) 929-5285**
County:	**Greenup**
Application Complete Date:	**June 11, 2004**
Issuance Date:	
Revision Date:	
Expiration Date:	

John S. Lyons, Director
Division for Air Quality

Revised 12/09/02

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Rev #	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
----	**Initial Issuance**	**F800**	**12/23/98**	**11/6/00**	
1	**Significant revision**	**51548**	**12/5/00**	**1/12/00**	**Increased Production limit from 6600 tpy to 8000 tpy**
2	**Significant revision**	**55749 55349 53161**	**7/1/03**	**2/21/03**	**Increased Production limit from 8000 tpy to 11000 tpy, and updated permit templete**
3	**Renewal Application**	**56485**	**4/13/04**	**---**	**Removal of Sulfonated Blue Production line from permit, installation of storage tanks T-62, T-46, and M-8, and the installation of Hammermill HM-1**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

01 UTILITIES - BOILERS:

EIS No.	Vent ID	Indirect Heat Exchanger ID	Make/Model	Date of Construction	Maximum Rated Capacity (Fuels used)
001	1	B-1	Boiler-Burnham Model No. 3P-500 450 hp	10/17/90	20.92 mmBtu/hr (Natural Gas) (Fuel Oil #2)
002	2	B-2	Boiler-Burnham Model No. 3P-500 450 hp	10/17/90	20.92 mmBtu/hr (Natural Gas) (Fuel Oil #2)
003	3	HO-1	Thermal Fluid Heater Model No. TJH-C-12.5	10/17/90	13.32 mmBtu/hr (Natural Gas) (Fuel Oil #2)
004	4	HO-2	Thermal Fluid Heater Model No. TJH-C-12.5	10/17/90	13.32 mmBtu/hr (Natural Gas) (Fuel Oil #2)
007*	5	WHB	Custom Build Noxidizer with Waste Heat Recovery	10/17/90	10.0 mmBtu/hr (Natural Gas) (Fuel Oil #2) (Process Gas)

*Only requirements for the Waste Heat Recovery system will be listed in this section.

Controls: None

APPLICABLE REGULATIONS:

a. For all units:
   i. Regulation 401 KAR 59:015 *New indirect heat exchangers constructed on or after April 9, 1972* applies to the particulate, sulfur dioxide and visible emissions.
   ii. Regulation 40 CFR 63 Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* applies to hazardous air pollutant emissions.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. For B-1, B-2, HO-1, and HO-2:
   i. Regulation 401 KAR 60:005 Section 3(e) (40 CFR 60.40c Subpart Dc) *Standards of performance for small industrial-commercial-institutional steam generating units that commences construction, modification, or reconstruction after June 9, 1989* applies to the particulate and sulfur dioxide emissions.

The source has elected to accept a limit on SO_2 emissions to preclude 401 KAR 51:017 *Prevention of significant deterioration of air quality*.

1. **Operating Limitations:** Pursuant to 40 CFR 60 Subpart Dc, Section 60.42(c)(h), no oil that contains greater than 0.5 weight percent sulfur shall be combusted.

Compliance Demonstration Method: Records as specified by **Condition 5 Specific Recordkeeping Requirements.**

2. **Emission Limitations:**
   a. Pursuant to Regulation 401 KAR 59:015
      i. Emissions of particulate matter shall not exceed 0.345 lb/mmBtu.
      ii. Emissions of sulfur dioxide shall not exceed 1.29 lb/mmBtu.
      iii. The opacity of visible emissions shall not exceed 20%.
         A. Pursuant to Regulations 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
         B. Pursuant to Regulations 401 KAR 59:015 Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

   b. Pursuant to Regulation 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

   c. Pursuant to 40 CFR 60.43:
      i. The sulfur content of the fuel oils shall not exceed 0.5 percent by weight.
      ii. The opacity of visible emissions shall not exceed 20% when burning fuel oil.

Compliance Demonstration Methods:

a. For sulfur content limits:
   The permittee shall demonstrate compliance with the sulfur content limits through either:
   i. Fuel oil sampling - the oil in each fuel oil tank shall be sampled after each new shipment of oil is received as described in 40 CFR 60.46c (d)(2);
   ii. Fuel oil supplier certification - the permittee shall maintain fuel oil receipts as specified in 40 CFR 60.49b (r).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. For the particulate matter standards:
Compliance with emission standards shall be demonstrated through each unit, burning only the fuels specified in this permit. The permittee shall keep records of the type(s) of fuel burned.

c. For visible emissions:
For each boiler, compliance is demonstrated while burning natural gas. Refer to **Condition 4. Specific Monitoring Requirements** and **Condition 5. Specific Recordkeeping Requirements** when burning Fuel Oil #2 or process gases.

3. Testing Requirements:

a. The permittee shall demonstrate compliance with the sulfur dioxide emission limits for #2 fuel oil combustion by fuel supplier certification of the fuel sulfur content.
b. If fuel oil sampling is performed, the sampling shall be performed in accordance with the procedures described in 40 CFR 60.46c (d)(2).
c. Refer to Section D.

4. Specific Monitoring Requirements:

The permittee shall monitor and maintain records of the following information:

a. The monthly (calendar month) fuel usage rate (cubic feet/month or gallons per month) of each of the fuels (natural gas and fuel oils #2) listed previously for each boiler.
b. The sulfur content of each type of fuel oil burned.
c. When a unit burns Fuel Oil #2 or process gas, the permittee shall perform a qualitative visible observation of the emissions from each stack on a monthly basis and maintain a log of the observations. If visible emissions from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs.
d. Refer to Section F.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. The maximum design heat input capacity of each of the boilers.
b. The sulfur content of fuel oil used. If fuel oil supplier certification is used to demonstrate compliance with the sulfur content limits, the records shall contain the following information:
    i. The name of the oil supplier.
    ii. A statement from the oil supplier certifying the sulfur content of the oil.
c. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(g), the permittee shall record the combined amount of natural gas combusted in all boilers during each day.
d. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(g), the permittee shall record the combined amount of fuel oil combusted in all boilers during each day.
e. Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(e), the permittee shall retain records of the quarterly reports required by Section 60.48c(d).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

f. Pursuant to 40 CFR 60 Subpart A, Section 60.7(b), and Regulation 401 KAR 59:005, Section 3(2), the permittee shall record the occurrence and duration of any startup, shutdown, or malfunction in the operation of the indirect heat exchanger.
g. The monthly log of qualitative visual observations of emissions and the opacity determined by Reference Method 9, if any were taken, and the repairs that were made due to any opacity reading which exceeded the standard.
h. Refer to Section F.

6. Specific Reporting Requirements:

a. Pursuant to 40 CFR 60 Subpart Dc, Sections 60.48c(d), (e)(11), and (f), the permittee shall submit quarterly reports to the Ashland Regional Office. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period, and shall include the following information:

i. Fuel supplier certification, as described in Monitoring Condition 4(b); and
ii. A statement signed by the owner or operator that the records of fuel supplier certification submitted represents all of the fuel oil combusted during the quarter.
iii. Refer to Section F.

b. For B-1, B-2, HO-1, and HO-2
i. Pursuant to 40 CFR 63.7506(b)(1), these units are subject to only the initial notification requirements in 63.9(b), each of these units have a capacity of greater than 10.0 mmBtu/hr.

c. For WHB:
i. Pursuant to 40 CFR 63.7506(c)(3), the WHB is not subject to the initial notification requirements in 63.9(b), the WHB has a rated capacity of less than or equal to 10.0 mmBtu/hr.

7. Specific Control Equipment Operating Conditions:

N/A

8. Alternate Operating Scenarios:

N/A

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(2) STORAGE TANKS

KY EIS	Tank ID	Capacity (gallons)	Type	Description	Vent ID	Date Installed
006	T-75	14,366	Vertical, Fixed Roof	Solvent Storage	5	1990
006	T-80	14,366	Vertical, Fixed Roof	Solvent Storage	5	1990
006	T-72	13,000	Vertical, Fixed Roof	ww collection/stripper	5	1990
011	T-200	9,200	Vertical, Fixed Roof	Solvent Cut Storage	5	1990
009(2)	T-45	6,000	Vertical, Fixed Roof	Wastewater Col	8	1990
009(2)	T-50	20,000	Vertical, Fixed Roof	ww equalization	8	1990
009(2)	T-55	20,000	Vertical, Fixed Roof	ww equalization	8	1990
009(2)	T-56	30,000	Vertical, Fixed Roof	ww collection	8	1990
009(2)	T-58	7,000	Vertical, Fixed Roof	sludge collection	8	1999
009(2)	T-61	4,000	Vertical, Fixed Roof	ww contact	8	1990
009(2)	T-70	17,300	Vertical, Fixed Roof	ww backwash	8	1990
009(2)	T-71	30,000	Vertical, Fixed Roof	ww backwash	8	1990
009(2)	T-62	30,000	Vertical, Fixed Roof	ww backwash	8	2004
009(2)	T-73	----	Vertical, Fixed Roof	ww collection	8	1990
009(2)	T-21	7,000	Vertical, Fixed Roof	Sludge Tank	8	1999
009(2)	T-46	6,000	Vertical, Fixed Roof	Sludge Tank	8	2004
010 (1)	T-60	16,000	Vertical, Fixed Roof	50% Caustic	9	1990
010 (3)	T-85	7,500	Vertical, Fixed Roof	Sulfuric acid	11	2005
010 (2)	T-65	------	Vertical, Fixed Roof	Sodium Sulfhydrate	10	1990

02 DAQ Control Equipment

Description: A water head is maintained in storage tanks T-75 and T-80 containing trichlorobenzene. No additional controls are present.

APPLICABLE REGULATIONS:

a. For Storage Tanks T-75 and T-80

i. Regulation 40 CFR 63 Subpart FFFF *National Emissions Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing* applies to hazardous air pollutants. Requirements listed in this permit pursuant to Subpart FFFF are subject to a compliance date of November 10, 2006 (40 CFR 63.2445(b)).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

State-Origin Applicable Regulations:

ii. Regulation 401 KAR 63:021 *Existing sources emitting toxic air pollutants* applies to toxic air pollutants.

NON-APPLICABLE REGULATIONS:

a. For All Storage Tanks Listed Under This Emission Unit

i. Regulation 401 KAR 59:050 *New storage vessels for petroleum liquids* does not apply as no petroleum liquid is being stored on-site.

ii. Regulation 401 KAR 60:005 Section 3(q) (40 CFR 60 Subpart Kb), Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. The tanks listed above are exempt from Regulation 40 CFR 60 Subpart Kb. Affected facilities are volatile organic liquid storage tanks with a capacity of greater than or equal to 75 cubic meters. All volatile organic liquid storage tanks listed above have a capacity of less than 75 cubic meters. Also no volatile organic liquids are stored in the caustic, acid, or wastewater storage tanks.

1. Operation Limitations:

a. Pursuant to Regulation 40 CFR 63:2550(i), Storage Tanks T-75 and T-80 must maintain vapor pressure less than 1.0 psia (52 mmHg or 6.9 kPa) while storing trichlorobenzene to maintain Group 2 Storage Tank status. [*Subject to a compliance date of November 10, 2006.*]

State Origin Requirement:

b. Pursuant to 401 KAR 63:021, the permittee shall maintain the presence of a water head on tanks T-75 and T-80.

Compliance Demonstration Method:

Refer to **Condition 5. Specific Recordkeeping Requirements.**

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

None

5. Specific Recordkeeping Requirements:

State Origin Requirement:

Pursuant to 401 KAR 63:021, the permittee shall maintain a weekly log of presence of a water head on tanks T-75 and T-80.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:
None

7. Specific Control Equipment Operating Conditions:

State Origin Requirement:
Pursuant to 401KAR 63:021, T-75 and T-80 shall be maintained under a water head when solvent is being stored.

Compliance Demonstration Method: Permittee shall maintain records of periods when solvent is being stored. Weekly records shall be kept of the water head depth.

8. Alternate Operating Scenarios:
N/A

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(3) PRODUCTION:

Description:

CPC Blue Process Equipment			
KY EIS	**ID**	**Description**	**Vent ID**
005 (1)	(R-1 thru 6)	6 - 4,000 gallon Glass Lined Reactors	5
005 (1)	(RFC-1 thru 6)	6 - 500 ft^2 Reactor Reflux Condensers	5
005 (1)	(T-1 thru 6)	6 - 500 gallon Condenser Decanter Tanks	5
005 (1)	(T-10)	1 - 4,000 gallon Mix Tank	5
005 (1)	(RVD-1 thru 6)	6 - 330 ft3 Rotary Vacuum Dryers	5
005 (1)	(VC-1 thru 6)	6 - 500 ft2 Vacuum Dryer Condensers	5
005 (1)	(VR-1 thru 6)	6 - 4,000 gallon Vacuum Receiver Tanks	5
005 (1)	(P-1)	1 -150 hp Vacuum Pump	5
005 (1)	(P-2)	1 - 200 hp Vacuum Pumps	5
005 (1)	(VC-7)	1 - 500 ft2 Gas Cooler	5
005 (1)	(VR-7)	1 - 2,000 gallon Moisture Receiver	5
005 (1)	(T-35)	1 - Knock-out Tank	5

Maximum Hourly Operating Rate: 2840 lb/hr per reactor unpurified crude blue slurry
Construction Commenced: 1990 (except R-1 installed 1999)
Controls: Dual Bed Carbon Adsorption System and Ammonia Thermal Oxidation System

Dryer/Packout/Hammermill			
005 (2)	(FD-1 thru 2)	2 – Wet Cake Semicontinuous Rotary Dryers	5
005 (2)	(PO-1)	1 – Product Pack-out Station	5
005 (2)	HM-1	1 – Hammermill	5

Maximum Hourly Operating Rate: 3000 lb/hr Copper Phthalocyanine Blue Crude Product
Construction Commenced: 1990 (except HM-1 installed 2004)
Controls: Pulse Jet Fabric Filters

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Building Fugitives			
005 (3)	(PT-1 thru 3)	3 - 20,000 gallon Purification Tanks	5
005 (3)	(FP-1 thru 3)	3 - Horizontal Chamber Plate Filter Presses	5
005 (3)	(ST-1 thru 3)	3 - 4,500 gallon Reslurry Tanks	5
005 (3)	(T-30)	1 - 7,500 gallon Product Slurry Hold Tank	5
005 (3)	(RB-1 thru 2)	2 - 500 ft3 Ribbon Blenders	5
005 (3)	(VP-1 thru 2)	2 - Vertical Belt Filter Press	5
005 (3)	(VPH-1 thru 2)	2 - Vertical Belt Filter Press Hydraulic Tank	5

Maximum Hourly Operating Rate: 12,500 Intermediate purified crude blue slurry
Construction Commenced: 1990
Controls: None

Dump Tank			
005 (4)	(T-20)	1 - 5,000 gallon Dump Tank	5

Maximum Hourly Operating Rate: 3000 lb/hr Copper Phthalocyanine Blue Crude Product
Construction Commenced: 1990
Controls: None

APPLICABLE REGULATIONS:

a. Regulation 401 KAR 59:010 *New Process Operations* constructed after July 2, 1975 applies to particulate matter.

b. Regulation 40 CFR 63 Subpart FFFF *National Emissions Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing* applies to hazardous air pollutants. Requirements listed in this permit pursuant to Subpart FFFF are subject to a compliance date of November 10, 2006 (40 CFR 63.2445(b)).

c. Regulation 401 KAR 63:020 *Potentially hazardous matter or toxic substances*.

State-Origin Applicable Regulations:

d. Regulation 401 KAR 63:021 *Existing sources emitting toxic air pollutants*.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

NON-APPLICABLE REGULATIONS:

a. Regulation 401 KAR 60:005 Section 3(ooo) (40 CFR 60 Subpart RRR)

i. The reactors listed above are exempt from Regulation 40 CFR 60 Subpart RRR since they are part of a process unit that does not produce any of the chemicals listed under those regulations.

b. Regulation 401 KAR 60:005 Section 3(q) (40 CFR 60 Subpart Kb)

i. The tanks listed above are exempt from Regulation 40 CFR 60 Subpart Kb as there are no volatile organic liquids being stored.

1. Operating Limitations:

a. Pursuant to 401 KAR 63:021 and Agreed Order #DAQ-17972-114, production rate of Copper Phthalocyanine Crude Blue shall not exceed 11,000 tons/year for any consecutive twelve months.

b. The thermal oxidation system shall only be used for the combustion of gaseous waste streams emanating from the process equipment. The thermal oxidation system shall not be used for the combustion of any liquid waste streams.

c. In the case of a malfunction of the reflux condenser system, the carbon adsorption system, or the ammonia thermal oxidation system, the vapor flow from the process shall be as rapidly as possible in a manner to be protective of human health and safety, locked within the process vessel. In the case of a malfunction of the reflux condenser system, the carbon adsorption system, or the ammonia thermal oxidation system, the heat supply to the vessel shall be shut off and the process shall be shutdown as rapidly as possible in a manner to be protective of human health and safety.

d. The permittee shall maintain the following spare parts in stock:

i. Cooling water circulation pump.
ii. Cooling tower packing.
iii. Process blower for the carbon adsorption system.
iv. Pulsejet dust collector filter bags and cages.

Compliance Demonstration Method: For **Operating Limitations** a. through d., refer to **Condition 5. Specific Recordkeeping Requirements**.

e. Regulation 401 KAR 63:020 Section 3

i. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet.

Compliance Demonstration Method: Refer to Section D.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. Emission Limitations:

a. Regulation 401 KAR 59:010 Section 3(2), particulate matter emissions shall not exceed:

i. When process weight rate is less than or equal to 60,000 lb/hr

$$E=3.59P^{0.62} \text{ lbs/hr}$$

E = rate of emission lb/hr of particulate matter
P = process weight rate tons/hr

ii. When process weight rate is greater than 60,000 lb/hr averaged over a period that covers a complete operation of the batch process.

$$E=17.31P^{0.16} \text{ lbs/hr}$$

E = rate of emission lb/hr of particulate matter
P = process weight rate tons/hr

***Compliance Demonstration Method*:**

a. Compliance with the particulate matter emissions limitation is demonstrated by following emission factors and control efficiencies for each emission point:

Emission Point	Emission Factor lb/ton of Product	Control Efficiency
005 (1)	NA	NA
005 (2)	0.38	0.00 %
005 (3)	5.00	0.00 %
005 (4)	NA	NA

b. The pulse jet dust collectors shall be equipped with a particulate detector which will automatically shut down the dust collector blower and wet cake dryer in case of particulate pass-through.

c. Refer to **Condition 6 Specific Control Operating Conditions** below for proper operation of controls.

b. Regulation 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis.

***Compliance Demonstration Method*:**

a. Refer to **Condition 4. Specific Monitoring Requirements** and **Condition 5. Specific Recordkeeping Requirements**

c. Regulation 401 KAR 63 Subpart FFFF, the permittee shall ensure that the *process vents* are not *batch process vents*, undiluted uncontrolled trichlorobenzene emissions shall not exceed 50 ppmv or 200 lb/yr. *[Subject to a compliance date of November 10, 2006.]*

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

***Compliance Demonstration Method*:**

a. To assure that the *process vents* are not *batch process vents* defined under 40 CFR 63, Subpart FFFF is maintained, the HCl concentration from the thermal oxidation system shall be less than 150 ppmv. [*Measurement of the trichlorobenzene concentration is not possible due to wet stack conditions and the presence of ammonia. Oxidation of the trichlorobenzene to HCl by the thermal oxidation system produces three moles of HCl per mole of trichlorobenzene ($C_6H_3Cl_3 + 6O_2 \rightarrow 6CO_2 + 3HCl$). Therefore, HCl is used as the indicator to assure the process vents remain exempt from classification as batch process vents under Subpart FFFF. Subject to a compliance date of November 10, 2006.]*

b. Refer to **Condition 4. Specific Monitoring Requirements** and **Condition 5. Specific Recordkeeping Requirements**

3. Testing Requirements: Sun Chemical Corporation, Wurtland Facility shall conduct performance testing at least twice during the duration of the permit, once in first 24 months after the final permit is issued and once at least 18 months before permit renewal as required by 401 KAR 52:020 Section 12. Sun Chemical Corporation, Wurtland Facility shall conduct performance tests on the carbon adsorber, ammonia thermal oxidation system. The required tests are as follows:

a. Carbon adsorber removal efficiency as measured by HCl emissions from the thermal oxidation system.
b. Total VOC emission rate.
c. Ammonia thermal oxidation system's NO_x emission rate.
d. PCB emission rate.
e. Dioxin/Furan emission rate.

4. Specific Monitoring Requirements:

a. The permittee shall maintain, calibrate and operate according to manufacturers' specification, a monitoring device for the continuous measurement of each of the following:
   i. The reactor temperature during the reaction cycle.
   ii. The inlet and outlet temperatures of the adsorption system.
   iii. The pressure drop across the carbon adsorption system.
   iv. The first stage combustion temperature of the ammonia thermal oxidation system.
   v. The O_2 outlet concentration of the ammonia thermal oxidation system.
   vi. The HCl outlet concentration of the ammonia thermal oxidation system.
   vii. The volumetric flow rate leaving the ammonia thermal oxidation system.
   viii. The pressure drop across the pulsejet dust collectors.
   ix. The inlet gas temperatures to the pulsejet dust collectors.
b. The permittee shall perform a qualitative visible observation of the emissions from applicable process equipment on a monthly basis and maintain a log of the observations. If visible emissions from the process equipment are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. Monthly production records.
b. Monthly hours of operation.
c. Continuous records (on electronic data acquisition system with a minimum recording frequency of four data points or averages per hour, strip chart recorder or equivalent) of the parameters listed in **Condition 4 Specific Monitoring Requirements.**
d. All maintenance activities performed on the Dual Bed Carbon Adsorption System, Ammonia Thermal Oxidation System and Pulse Jet Fabric Filters.
e. Any malfunction or shutdown due to malfunction of the reflux condenser system, the carbon adsorption system, or the ammonia thermal oxidation system.
f. HCl concentration shall be recorded also as HCl mass flow rate in lb/hr, taking into account the stack gas temperature, actual flow rate and moisture content.
g. Replacement and restocking of the spare parts listed in **Condition 1 Operating Limitations**, Requirement d.
h. Any shutdowns of the dust collector blower and wet cake dryer because of particulate pass- through.
i. The monthly log of qualitative visual observations of emissions and the opacity determined by Reference Method 9, if any were taken, and the repairs that were made due to any opacity reading which exceeded the standard.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

a. Dual Bed Carbon Adsorption System shall reduce hydrocarbons by at least 97% between inlet and outlet based on a three-hour compliance average.
   Compliance demonstration
   i. The ammonia thermal oxidation system shall be operated as in 7.c. below.
   ii. HCl mass flow rates shall be less than 2.9 lb/hour on a three-hour basis.
b. The pulse jet dust collectors shall be equipped with a particulate detector which will automatically shut down the dust collector blower and wet cake dryer in case of particulate pass-through.
c. The ammonia thermal oxidation system shall operate at a first-stage combustion temperature of 2100^{o} F ± 110^{o}F. An excursion is any 3-hour period during which the average temperature was outside of this range.
d. The O_2 outlet concentration of the ammonia thermal oxidation system shall be greater than 4%. An excursion is any 3-hour period during which the average temperature was outside of this range.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(4) WASTEWATER PRETREATMENT PROCESS:

Description:

KY EIS	ID	Description	Date Installed	Vent ID
006 (1)	(T-72)	1 -13,000 gallon Wastewater Collection/Stripper Tank	1990	5
009 (1)	(T-90A & 91A)	2 – Clarifiers	1990	5
009 (1)	(T-90B, 91B, & 57B)	3 - Flocculators	1990	5
009 (1)	T-90C, 91C, & 57A)	3- Mixer Vessels	1990	5
009 (1)	(T-95A & 95B)	2 -Sand Filters	1990	5
009 (1)	(T-97)	1 - Sand Filter Clear Well	1990	5
009 (1)	(T-96)	1 - 300 gallon Wastewater Collection tank	1990	5
009 (2)	(T-46)	1- 6,000 gallon Hold Tank	2004	8
009 (2)	(T-45)	1 -6,000 gallon Wastewater Collection Tank	1990	8
009 (2)	(T-50 & 55)	2 -20,000 gallon Equalization Tanks	1990	8
009 (2)	(T-71)	1 -30,000 gallon wastewater (dirty) backwash tank	1990	8
009 (2)	(T-61)	1 - 4,000 gallon wastewater contact tank	1990	8
009 (2)	(T-62)	1-30,000 gallon wastewater storage – backup to T-71	2003	8
009 (2)	(T-56)	1 – 30,000 gallon wastewater collection tank	1990	8
009 (2)	(T-70)	1 -17,300 gallon wastewater (clean) backwash tank	1990	8
009 (2)	(T-58)	1 – 7,000 gallon Sludge Collection Tank	1999	8
009 (2)	(T-21)	1 -7,000 gallon Sludge Tank	1999	8
009 (2)	(T-73)	1 - Wastewater Collection Tank	1990	8
009 (3)	(M-4)	1 -275 gallon Precipitant Tank	1990	5
009 (3)	(M-1 & 5)	2 -275 gallon Flocculant Tank	1990	5
009 (3)	(M-3 & 7)	2 – 275 Caustic Day Tanks	1990	5
009 (3)	(M-2)	1 – 275 gallon Coagulant Tank	1990	5
009 (3)	(M-8)	1 – 250 gallon Coagulant Tank	2004	5
--	(CAW-1 & 2)	2 -20,000 gallon carbon adsorption pressure tanks	1990	--
005 (4)	(T-20)	1 -5,000 gallon Dump Tank	1990	5

Maximum continuous rating: 10400 gallons/hr throughput

Controls: None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

a. Regulation 401 KAR 63:020 *Potentially hazardous matter or toxic substances*.
b. Regulation 401 KAR 63:021 *Existing sources emitting toxic air pollutants* applies to Ammonia emission.
c. Regulation 40 CFR 63 Subpart FFFF *National Emissions Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing* applies to hazardous air pollutants. Requirements listed in this permit pursuant to Subpart FFFF are subject to a compliance date of November 10, 2006 (40 CFR 63.2445(b)).
    i. Incorporating by reference 40 CFR 63.132 through 63.148 of Subpart G

1. <u>Operating Limitations</u>:

a. To maintain Group 2 status the Wastewater Streams shall not meet any of the following criteria listed in Regulation 40 CFR 63.2485(c)(1) through (3) Subpart FFFF. [*Subject to a compliance date of November 10, 2006.*]
    i. The total annual average concentration of compounds in Table 8 of Subpart FFFF is greater than 50 ppmw *and* the combined total annual average concentration of compounds in Table 8 and Table 9 of Subpart FFFF is greater than or equal to 10,000 ppmw at *any* flow rate.
    ii. The total annual average concentration of compounds in Table 8 of Subpart FFFF is greater than 50 ppmw, *and* the combined total annual average concentration of compounds in Table 8 and Table 9 of Subpart FFFF is greater than or equal to 1,000 ppmw, *and* the annual average flow rate is greater than or equal to 1 liter per minute.
    iii. The total annual average concentration of compounds in Table 8 of Subpart FFFF is less than or equal to 50 ppmw, *and* the combined total annual average concentration of compounds in Table 9 of Subpart FFFF is greater than or equal to 30,000 ppmw at an existing source or greater than or equal to 4,500 ppmw at a new source, *and* the total annual load of compounds in Table 9 of Subpart FFFF is greater than or equal to 1 ton per year.

***Compliance Demonstration Method*:** [*Subject to a compliance date of November 10, 2006.*]

a. Total annual average concentration shall be determined according to procedures specified in 40 CFR 63.144(b) of Subpart G.
b. Annual average flow rate shall be determined according to procedures specified in 40 CFR 63.144(c) of Subpart G.
c. Total annual average concentration and annual average flow may also be determined by alternative test methods specified in 40 CFR 63.2485(h)(1) through (3).

b. Regulation 401 KAR 63:020 Section 3
    i. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet.

***Compliance Demonstration Method*:** Refer to Section D.

2. Emission Limitations:
None

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain records specified in 40 CFR 63.147(b)(8)(i) through (iv) of Subpart G. [*Subject to a compliance date of November 10, 2006.*]

6. Specific Reporting Requirements:
a. The permittee shall include, in the Notification of Compliance Status Report required under 40 CFR 63.2520(d) of Subpart FFFF, the information specified in 40 CFR 63.146(b)(1)(i) through (iv) of Subpart G. [*Subject to a compliance date of November 10, 2006.*]

7. Specific Control Equipment Operating Conditions: Ammonia emissions from the Wastewater collection/Stripper Tank (T-72) shall be vented to the waste heat boiler.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(5) Urea Bulk Handling System

Description:

KY EIS	ID	Description	Vent ID
008 (1&2)	BH-4	Urea Bulk Handling	6 &7

Maximum continuous rating: 45,000 lb/hr
Construction commenced: 1997
Controls: Two Fabric Filters

APPLICABLE REGULATIONS:

a. 401 KAR 59:010 *New Process Operations* constructed after July 2, 1975 applies to particulate emissions.

1. Operating Limitations: None

2. Emission Limitations:

a. a. Mass Emission Limit Pursuant to Regulation 401 KAR 59:010 Section 3(2) particulate matter emissions shall not exceed:

i. When process weight rate is less than or equal to 60,000 lb/hr

$$E=3.59P^{0.62} \text{ lbs/hr}$$

E = rate of emission lb/hr particulate matter
P = process weight rate

ii. When process weight rate is greater than 60,000 lb/hr averaged over a period that covers a complete operation of the batch process.

$$E=17.31P^{0.16} \text{ lbs/hr}$$

E = rate of emission lb/hr particulate matter
P = process weight rate

***Compliance Demonstration Method*:**

a. Compliance with the particulate matter emission limitation is demonstrated by the following emission factor and control efficiency.

Emission Point	Emission Factor (lb/ton Product)	Control Efficiency (%)
BH-4	0.38	99.0 %

b. If any of the emission units associated with a fabric filter are in operation during any period of a malfunction of the fabric filter, the permittee shall determine compliance through maintenance of the records required by Item d. under

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Condition 5 Specific Recordkeeping Requirements for proper operation of controls.

b. Opacity Limit Pursuant to Regulation 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis.

***Compliance Demonstration Method*:**

a. Refer to **Condition 4. Specific Monitoring Requirements** and **Condition 5. Specific Recordkeeping Requirements**

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

a. The permittee shall perform a weekly visual inspection of the fabric filter system.
b. The permittee shall perform a qualitative visible observation of the emissions from applicable process equipment on a monthly basis and maintain a log of the observations. If visible emissions from the process equipment are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

a. Monthly throughput through the system.
b. Monthly hours of operation.
c. Weekly log of visual inspections of the fabric filter.
d. During all periods of malfunction of any of the fabric filters if any of the emission units associated with each station are in operation, a daily (calendar day) log of the following information shall be kept:
    i. Whether any air emissions were visible.
    If visible emissions are observed, the permittee shall record the following information:
    ii. Whether the visible emissions were normal for the process.
    iii. The color of the emissions and whether the emissions were light or heavy.
    iv. The cause of the abnormal visible emissions.
    v. Any corrective actions taken.
e. All routine and nonroutine maintenance activities performed on the fabric filters.
f. The monthly log of qualitative visual observations of emissions and the opacity determined by Reference Method 9, if any were taken, and the repairs that were made due to any opacity reading which exceeded the standard.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(6) **PIPELINE EQUIPMENT IN HEAVY LIQUID SERVICE:** This category covers the regulated pipeline components i.e., those subject to equipment leak standards.

Description:

KY EIS	Sun ID	Process Area	**Count	Type of Component
005	(--)	CPC Blue Process Area		Heavy Liquid Pumps
				Heavy Liquid Valves
				Heavy Liquid Connectors
				Heavy Liquid Agitators
				Compressors
				Sampling Connection Systems
				Open-ended Valves or Lines
006	(--)	Solvent Storage Tank Area		Heavy Liquid Pumps
				Heavy Liquid Valves
				Heavy Liquid Connectors
				Heavy Liquid Agitators
				Compressors
				Sampling Connection Systems
				Open-ended Valves or Lines
009	(--)	Wastewater Pretreatment		Heavy Liquid Pumps
				Heavy Liquid Valves
				Heavy Liquid Connectors
				Heavy Liquid Agitators
				Compressors
				Sampling Connection Systems
				Open-ended Valves or Lines

Maximum continuous rating: NA
Construction commenced: 1990
Controls: None

** 40 CFR 63 Subpart UU, the permittee shall identify and detail an accurate count of the pipeline equipment in heavy liquid service by November 10, 2006 as required by 40 CFR 63 Subpart FFFF. The permittee may add or remove pipeline equipment from the Pipeline Equipment in Heavy Liquid Service without a permit revision as long as the equipment continues to comply with the requirements listed below.

APPLICABLE REGULATIONS:

a. Regulation 40 CFR 63 Subpart FFFF applies to equipment leaks from pipeline equipment in heavy liquid service. Requirements listed in this permit pursuant to Subpart FFFF are subject to a compliance date of November 10, 2006 (40 CFR 63.2445(b)).
   i. Incorporating by reference 40 CFR 63 Subpart UU.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

NON-APPLICABLE REGULATIONS:

a. Regulation 401 KAR 60:005 Section 3(zz) (40 CFR 60 Subpart VV)
   i. The reactors located at the Sun Chemical facility are exempt from Regulation 40 CFR 60 Subpart VV since they are part of a process unit that does not produce any of the chemicals listed under those regulations.

1. Operating Limitations: [*Subject to a compliance date of November 10, 2006.*]

a. For the pipeline equipment, the permittee shall implement a leak detection and repair (LDAR) program containing the following elements:
   i. 40 CFR 63 Subpart UU, each piece of pipeline equipment in heavy liquid service shall be identified per 40 CFR 63.1022.
   ii. The permittee must not operate equipment in light liquid service nor operate in gas or vapor service as defined under 40 CFR 63.1020.
   iii. Components identified as exempt must operate in vacuum service, and/or operate less than 300 hours per year in heavy liquid service, and/or contain no process fluids.
   iv. Specific standards for each type of pipeline equipment described under **2. Emission Limitations** below.

Compliance Demonstration Method: [*Subject to a compliance date of November 10, 2006.*]

a. Compliance with 40 CFR 63 Subpart UU shall be determined by review of the records required by 63.1038 and the reports required by 63.1039, review of performance test results, and by inspections.

2. Emission Limitations: [*Subject to a compliance date of November 10, 2006.*]

a. The permittee shall incorporate the following elements in the required leak detection and repair (LDAR) program. If any of the equipment qualifies for the specific exemptions available in 40 CFR 63 Subpart UU, the permittee shall maintain records of the reason(s) why the equipment is exempt.
   i. Pumps, valves, connectors, and agitators in heavy liquid service; pressure relief devices in liquid service; and instrumentation systems standards [40 CFR 63.1029]:
      40 CFR 63.1029 (a) Compliance Schedule
      40 CFR 63.1029 (b) Leak Detection
      40 CFR 63.1029 (c) Leak Repair
   ii. Compressor standards [40 CFR 63.1031]:
      40 CFR 63.1031 (a) Compliance schedule
      40 CFR 63.1031 (b) Seal system standard
      40 CFR 63.1031 (c) Barrier fluid system
      40 CFR 63.1031 (d) Failure criterion and leak detection
      40 CFR 63.1031 (e) Routed to a process or fuel gas system or equipped with a closed vent system and control device
      40 CFR 63.1031 (f) Alternative compressor standard
   iii. Sampling connection systems standards [40 CFR 63.1032]:
      40 CFR 63.1032 (a) Compliance schedule
      40 CFR 63.1032 (b) Equipment requirement
      40 CFR 63.1032 (c) Equipment design and operation

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

40 CFR 63.1032 (d) In-situ sampling systems

iv. Open-ended valves or lines standards [40 CFR 63.1033]:
40 CFR 63.1033 (a) Compliance schedule
40 CFR 63.1033 (b) Equipment and operational requirements
40 CFR 63.1033 (c) Emergency shutdown exemption
40 CFR 63.1033 (d) Polymerizing materials exemption

v. Quality improvement program (QIP) for pumps [40 CFR 63.1035]:
40 CFR 63.1035 (a) Criteria
40 CFR 63.1035 (b) Exiting the QIP
40 CFR 63.1035 (c) Resumption of QIP
40 CFR 63.1035 (d) QIP requirements
40 CFR 63.1035 (e) QIP recordkeeping

vi. Alternative means of emission limitation: Batch Processes [40 CFR 63.1036]:
40 CFR 63.1036 (a) General requirement
40 CFR 63.1036 (b) Pressure testing of the batch equipment
40 CFR 63.1036 (c) Equipment monitoring
40 CFR 63.1036 (d) Added equipment recordkeeping
40 CFR 63.1036 (e) Delay of repair
40 CFR 63.1036 (f) Periodic report contents

Compliance Demonstration Method:
A copy of the leak detection and repair (LDAR) program meeting the criteria listed above shall be kept available at a readily accessible location for inspection.

3. Testing Requirements: [*Subject to a compliance date of November 10, 2006.*]

a. 40 CFR 63.2480(c)
   i. The requirements for pressure testing in 63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.

b. The permittee shall fulfill all testing/monitoring requirements per **2. Emission Limitations**

4. Specific Monitoring Requirements: [*Subject to a compliance date of November 10, 2006.*]

a. The permittee shall fulfill all monitoring requirements per **2. Emission Limitations**

5. Specific Recordkeeping Requirements: [*Subject to a compliance date of November 10, 2006.*]

a. 40 CFR 63.1038(a)
   i. The permittee may comply with the recordkeeping requirements for all sources in heavy liquid service in one recordkeeping system. The system shall identify each record by process unit and the program being implemented (e.g. quarterly monitoring, quality improvement) for each type of equipment. All records required by 40 CFR 63.1038 shall be maintained in a manner that can be readily accessed at the plant site.

b. 40 CFR 63.1038 (b)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

i. If equipment in heavy liquid service is not physically identified, the permittee shall maintain a record of general and specific equipment identification.
ii. As specified in 40 CFR 63.1022(c)(4), the permittee shall maintain a written plan for any equipment that is unsafe or difficult-to-monitor.
iii. As specified in 40 CFR 63.1022(d)(2), the permittee shall maintain identification and an explaination for equipment designated as unsafe-to-repair.
iv. As specified in 40 CFR 63.1022(e), the permittee shall maintain identity of compressors operating with an instrument reading of less than 500 parts per million.
v. As specified in 40 CFR 63.1022(f), the permittee shall maintain records associated with the determination that equipment is in heavy liquid service.
vi. As specified in 40 CFR 63.1023(e)(2), the permittee shall maintain records of leaking equipment.
vii. As specified in 40 CFR 63.1024(d) and (f), the permittee shall maintain records for delay of repair and records of leak repair.

c. 40 CFR 63.1038 (c)
i. For compressors, the permittee shall maintain records as follows:
A. Criteria used to indicate a failure of the seal system and/or the barrier fluid system, record the design criteria and explanations and any changes in the criteria and the reason for the changes specified in 40 CFR 63.1031(d)(2).
B. If operating under the alternative compressor standard, dates and results of each compliance test specified in 40 CFR 63.1031(f)(2).
ii. For a pump QIP, the permittee shall maintain records as follows:
A. Individual pump records as specified in 40 CFR 63.1035(d)(2).
B. Trial evaluation program documentation as specified in 40 CFR 63.1035(d)(6)(iii).
C. Engineering evaluation documenting the basis for judgment that superior emission performance technology is not applicable as specified in 40 CFR 63.1035(d)(6)(vi).
D. Quality assurance program documentation as specified in 40 CFR 63.1035(d)(7).
E. QIP records as specified in 40 CFR 63.1035(e).
iii. For process units complying with the batch process unit alternative, the permittee shall maintain records as follows:
A. Pressure test records as specified in 40 CFR 63.1036(b)(7).
B. Equipment added to the process unit as specified in 40 CFR 63.1036(d).

6. **Specific Reporting Requirements:** [*Subject to a compliance date of November 10, 2006.*]

a. *Precompliance Report.* The permittee shall submit a Precompliance Report at least 6 months prior to November 10, 2006. The report shall include information specified in 40 CFR 63.2520(c)(1) through (7) of Subpart FFFF.
b. *Notification of Compliance Status Report.* The permittee shall submit a Notification of Compliance Status Report according to the procedures specified in 40 CFR 63.2520(d)(1). The report shall include information specified in 40 CFR 63.1039 (a)(1) through (3) of Subpart UU.
c. *Periodic Reports*. The permittee shall submit a Periodic Report according to procedures specified in 40 CFR 63.2520(b)(1) through (5) of Subpart FFFF. The

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

report shall include information specified in 40 CFR 63.1039(b)(1) through (8) of Subpart UU.

7. Specific Control Equipment Operating Conditions: None

8. Alternate Operating Scenarios: None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Tank Truck Transfer Station	None
2.	Water Tanks (T-103, 104, & 105)	None
3.	Ice Bin (TB-101)	None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. *PM, SO2, NOx, CO, VOC, and opacity* emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. In order to preclude the applicability of Regulation 401 KAR 51:017, total emission of Sulfur Dioxide from the original source construction (Emission areas 1 and 3) shall not exceed 90 tons per year based on a twelve (12) month rolling total. Compliance shall be demonstrated through maintaining records of fuels combusted and Sulfur content of any fuel oil combusted. Compliance shall also be demonstrated by maintaining records including the calculations of monthly and 12-month Sulfur Dioxide emissions.

4. Pursuant to 401 KAR 63:020, persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. (5 Ky.R. 512; eff. 6-6-79.) Routine operation and maintenance procedures shall ensure optimum engine operations.

   Compliance Demonstration Method: The facility shall demonstrate compliance by performing emission modeling for ammonia, 1,2,4-trichlorobenzene, and hydrochloric acid. The concentration of each pollutant in the ambient air, open to the public, shall be below the carcinogenic risk of 1 in a million, or below the RfC for non-carcinogens (as listed in the EPA Integrated Risk Information System (IRIS)). Results shall be sent to the Division for Air Quality no later than 3 months from issuance of this permit.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

2. The permittee shall submit to the division any changes to the Standard Operating Procedures manual, which documents the changes in operating procedures and/or maintenance techniques, used to maintain the equipment in good operating condition.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
    a. Date, place as defined in this permit, and time of sampling or measurements;
    b. Analyses performance dates;
    c. Company or entity that performed analyses;
    d. Analytical techniques or methods used;
    e. Analyses results; and
    f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
    a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
    b. To access and copy any records required by the permit:
    c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

    Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
    a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
    a. Identification of the term or condition;
    b. Compliance status of each term or condition of the permit;
    c. Whether compliance was continuous or intermittent;
    d. The method used for determining the compliance status for the source, currently and over the reporting period.
    e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Ashland Regional Office
1550 Wolohan Drive, Suite #1
Ashland, KY 41102

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
    a. Applicable requirements that are included and specifically identified in the permit and
    b. Non-applicable requirements expressly identified in this permit.

17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
None

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
   e. This requirement does not relieve the source of other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.
2. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A